



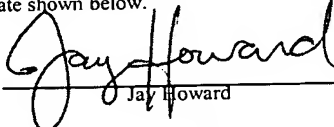
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: William A. Goldman et al.
Serial No.: 10/669,105
Date Filed: September 23, 2003
Group Art Unit: Unknown
Title: ***Method and System for Predicting Performance of a Drilling System for a Given Formation***

EV352394289US

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express mail No. EV352394289US in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.


Jay Howard

07/02/2004
Date

Dear Sir or Madam:

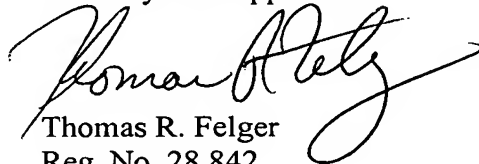
INFORMATION DISCLOSURE STATEMENT

Applicants respectfully request, pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form, and previously cited in U.S. Application Serial No. 10/177,829, filed June 21, 2002, by William A. Goldman et al., and entitled ***Method and System for Predicting Performance of a Drilling System for a Given Formation***, be considered and cited in the examination of the above-identified continuation application. Pursuant to 37 C.F.R. §1.98(d), copies of the references are not being furnished. Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

Applicants believe no fees are due; however, the Commissioner is hereby authorized to charge any fees to Deposit Account No. 50-2148 of Baker Botts L.L.P. in order to effectuate this filing.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicants


Thomas R. Felger
Reg. No. 28,842

Date: 2 JULY 2004

Correspondence Address:

Customer No. **31625**

Baker Botts, LLP
98 San Jacinto Blvd
1500 San Jacinto Center
Austin, TX 78701
512.322.2599
512.322.8305 (Fax)

PTO-1449

JUL 02 2004

**Information Disclosure Citation
in an Application**

Application No.

10/669,105

Docket Number

074263.0170

Applicant(s)

William A. Goldman et al.

Group Art Unit

Unassigned

Filing Date

September 23, 2003

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	1209299	12/19/16	Hughes	--	--	12/30/16
A.	1263802	04/23/18	Reed	--	--	08/13/17
B.	1394769	10/25/21	Sorensen	--	--	05/18/20
B	3660649	5/72	Gilchrist et al.	235	193	09/28/70
C	3761701	9/73	Wilder et al.	235	193	07/14/71
C.	4056153	11/01/97	Miglierini	175	376	07/16/76
A.	4479176	10/84	Grimshaw	364	148	02/08/82
B.	4617825	10/1986	Ruhovets	73	152.05	09/12/85
C.	4646240	02/1987	Serra et al.	364	422	04/07/86

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
D.	0384734A	08/29/90	EP	E21B	10/16	X	
E.	2241266	08/28/91	GB	E21B	10/46	X	
D	2328966	3/10/99	GB	E21B	10/16	X	-
F.	2343905	5/24/00	GB	E21B	10/16	X	-

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
G.	European Search Report for EP03021140.3; 6 pages	02/04/2004
H.	French Preliminary Report for application no. FR 0203948. 5pages	11/21/2003
I.	K.K. Millheim, "The Role of the Simulator in Drilling Operations", SPE Drilling Engineering	10/1986
J.	Dr. Alan J. Scott, "Online Animations of Time Evolving Physical Systems", Depart of Physics, University of Wisconsin-Stout	Printed 05/04/04
K.	G. Martin Milner and Glen Corser, "Data Processing and Interpretation While Drilling", AADE National Drilling Technical Conference	2001
L.	Jim O'Hare and Osarumwense O.A. Aigbekaen Jr., "Design Index: A Systematic Method of PDC Drill-Bit Selection", IADC World Drilling	2000
M.	J Booth and M.M. Cook, "Meeting Future Drilling Planning and Decision Support Requirements: A New Drilling Simulator", SPE/IADC Drilling Conference	2001
N.	P.R. Rampersad, G. Hareland and P. Boonyapaluk, "Drilling Optimization Using Drilling Data and Available Technology", Society of Petroleum Engineers, Inc.	1994
O.	Foucalt, Hubert et al., "An Integrated Drilling Optimazation for Faster and Higher Improvements in Oseberg South", Halliburton Energy Services; Hydro, 8 pages.	2003

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

PTO-1449 Information Disclosure Citation in an Application		Application No. 10/669,105 Docket Number 074263.0170		Applicant(s) William A. Goldman et al. Group Art Unit Unassigned Filing Date September 23, 2003			
U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A.	4718011	01/1988	Patterson, Jr.	364	422	11/24/86
	B.	4794534	12/88	Millheim	175	40	08/08/85
	A.	4794535	12/88	Gray et al.	364	420	08/18/86
	C.	4852399	08/89	Falconer	73	151.5	07/13/88
	D.	4876886	10/89	Bible et al.	73	151.5	04/04/88
	E.	4916616	04/1990	Freedman et al.	364	422	12/08/86
	F.	4926950	05/90	Zijsling	175	39	12/20/88
	G.	4928521	05/90	Jardine	73	152.43	03/27/89
	H.	5216612	06/1993	Cornett et al.	364	468	07/16/90
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	A.	2360304	9/19/01	GB	E21B	10/16	X -
	B.	2363144	12/12/01	GB	E21B	10/16	X -
	C.	2363145	12/12/01	GB	E21B	10/16	X -
	D.	2363146	12/12/01	GB	E21B	10/16	X -
NON-PATENT DOCUMENTS							
		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
	E.	W.W. Reynolds, " <i>Economic Analysis of Drilling Plans and Contractors by Use of a Drilling Systems Approach</i> ", Journal of Petroleum Technology, XP-002261288, pages 787-793					07/1986
	F.	M.R. Fassihi et al., " <i>Risk Management for the Development of an Offshore Prospect</i> ", SPE 52975, XP-002261289, pages 1-6					03/20/1999
	G.	I.C. Pallister et al., "Asset Optimization Using Multiple Realizations and Streamline Simulation", Society of Petroleum Engineers – SPE 59460					04/25/00
	H.	Tom H. Hill et al., " <i>Drilling Optimization: Practice makes perfect</i> ", World Oil vol. 220, no. 4, XP-000831749, pages 63-64, 66, and 68.					04/1999
	I.	Ali G. Kadaster et al., " <i>Drilling Time Analysis-A TQM Tool For Drilling in the '90s</i> ", Petroleum Engineer International vol. 65, no. 2, XP 000349995, pages 31-32, 35-38					02/1993
	J.	Wilson C. Chin, " <i>Wave Propagation in Petroleum Engineering</i> " (1994)					1994
	K.	Brochure entitled: " <i>Twist & Shout</i> ", Smith International, Inc., (SB2255.1001), 4 pages					Printed 06/2004
	L.	Adam T. Bourgoynne Jr et. al., " <i>Applied Drilling Engineering</i> ", Society of Petroleum Engineers Textbook Series (1991)					1991
EXAMINER					DATE CONSIDERED		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							

PTO-1449 Information Disclosure Citation in an Application		Application No.		Applicant(s)	
		10/669,105		William A. Goldman et al.	
		Docket Number		Group Art Unit	Filing Date
		074263.0170		Unassigned	September 23, 2003

U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A.	5239467	08/1993	Kelly et al.	364	421	02/19/92
	A.	5251286	10/1993	Wiener et al.	395	22	03/16/92
	B.	5334833	08/1994	Case et al.	250	270	06/14/91
	C.	5369570	11/1994	Parad	364	401	11/14/91
	D.	5416697	05/1995	Goodman	364	422	07/31/92
	E.	5461562	10/1995	Tabanou et al.	364	422	06/21/94
	F.	5539704	07/1996	Doyen et al.	367	73	06/23/95
	G.	5608162	03/04/97	Ho	73	152.48	07/13/95
	B.	5660239	08/1997	Mueller	175	61	09/27/93

FOREIGN PATENT DOCUMENTS								
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	A.	2364083	1/16/02	GB	E21B	10/16	X	-
	C.	2365899	2/27/02	GB	E21B	10/16	X	-
	D.	2370059	6/19/02	GB	E21B	10/16	X	-
	E.	2370060	6/19/02	GB	E21B	10/16	X	-

NON-PATENT DOCUMENTS			
		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
	F.	J. P. Nguyen, "Oil and Gas Field Development Techniques: Drilling" (translation 1996, from French original 1993)	1996
	G.	"Making Hole", part of Rotary Drilling Series, edited by Charles Kirkley (1983)	1983
	H.	"Drilling Mud", part of Rotary Drilling Series, edited by Charles Kirkley (1984)	1984
	I.	H.G. Benson, "Rock Bit Design, Selection and Evaluation", presented at the spring meeting of the pacific coast district, American Petroleum Institute, Division of Production, Los Angeles, May, (1956)	05/1956
	J.	J.C. Estes, "Selecting the Proper Rotary Rock Bit", Journal of Petroleum Technology, Nov., (1971), pp1359-1367	11/1971
	K.	Sikarskie, et. al., "Penetration Problems in Rock Mechanics", American Society of Mechanical Engineers, Rock Mechanics Symposium, (1973)	1973
	L.	Dykstra, et. al., "Experimental Evaluations of Drill String Dynamics", Amoco Report Number SPE 28323, (1994)	1994
	M.	Kenner and Isbell, "Dynamic Analysis Reveals Stability of Roller Cone Rock Bits", SPE 28314, (1994)	1994

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

PTO-1449 Information Disclosure Citation in an Application		Application No.		Applicant(s)			
		10/669,105		William A. Goldman et al.			
		Docket Number		Group Art Unit		Filing Date	
		074263.0170		Unassigned		September 23, 2003	
U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A.	5845258	12/1998	Kennedy	705	8	06/16/95
	A.	5963910	10/1999	Ulwick	705	7	09/20/96
	B.	6026912	2/22/00	King et al.	-	-	--
	B.	6044327	03/28/00	Goldman	702	11	11/13/97
	C.	6052649	04/18/00	Goldman et al.	702	11	05/18/98
	D.	6155357	12/5/00	King et al.	-	-	--
	C.	6169967	01/02/01	Dahlem et al.	703	10	09/04/98
	E.	6233498	5/15/01	King et al.	-	-	--
	F.	6276465	8/21/01	Cooley et al.	-	-	--
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	A.	2371321	7/24/02	GB	E21B	10/16	X -
	G.	2371366 A	07/24/02	GB	E21B	44/00	X
	H.	1654515	03/29/88	SU	E21B	10/16	X
	I.	1691497	05/30/88	SU	E21B	10/16	X
NON-PATENT DOCUMENTS							
		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
	J.	Bassiouni, Z., "Theory, Measurement, and Interpretation of Well Logs"; Richardson, TX 1994; 23 pgs.					1994
	K.	Computer Processing of Log Data Improves Production in Chaveroo Field; pp. 889-895; <i>Journal of Petroleum Technology</i>					07/1967
	L.	Doveton, J.D. et al., "Fast Matrix Methods for the Lithological Interpretation of Geophysical Logs", Geomathematical and Petrophysical Studies in Sedimentology; 17 pgs.					07/1978
	M.	Doveton, John D.; "Geologic Log Analysis Using Computer Methods" <i>AAGP Computer Applications in Geology</i> , No. 2; 30 pgs.					1994
	N.	Harris, Martin H et al., "A Computer-Oriented Generalized Porosity-Lithology Interpretation of Neutron, Density and Sonic Log", 10 pgs.					02/1971
	O.	Rider, Malcom; <i>The Geological Interpretation of Well Logs</i> , Second Edition; Gulf Publishing, Houston, 35 pgs.					1996
	P.	Schlumberger Log Interpretation Principles/Applications: <i>Schlumberger Educational Services</i> ; 15 pgs.					1991
	Q.	Dewan, John T.; "Essentials of Moder Open-Hole Log Interpretation", pp. 210227, NL Industries Inc.					1983
EXAMINER					DATE CONSIDERED		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							

PTO-1449 Information Disclosure Citation in an Application		Application No.		Applicant(s)	
		10/669,105		William A. Goldman et al.	
		Docket Number		Group Art Unit	Filing Date
		074263.0170		Unassigned	September 23, 2003

U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	H.	6374926	04/23/02	Goldman et al.	175	39	06/21/00
	I.	6389360	5/02	Alft et al.	702	9	--
	A.	6424919	7/23/02	Moran et al.	-	-	--
	J.	6612382	09/02/03	King	175	40	03/28/01
	B.	2002/0120401	9/01	Macdonald et al.	702	6	--
	C.						
	D.						
	E.						
	F.						

FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	G.	1020253	11/14/03	NL	-	-	X

NON-PATENT DOCUMENTS		
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
H.	Franco, Victor Hugo, "Introduction to Wireline Log Analysis", Western Atlas International, Houston; pp 185-231	1992
I.	Crain, E.R.; "The Log Analysis Handbook, Volume One: Quantative Log Analysis Methods", PennWell, Tulsa, OK	1986
J.	Prammer, M.G. et al., "Measurements of Clay-Bound Water and Total Porosity by Magnetic Resonance Logging", SPE paper 36522	1996
K.	Oort, Eric Van, "Physico-Chemical Stabilization of Shales", SPE paper 37623	1996
L.	Smith, L. et al., "Successful Field Application of an Electro-Negative 'Coating' to Reduce Bit Balling Tendencies in Water Based Mud", SPE/IADC paper 35110	1996
M.	Glover, et al., "New Advances and Applications of Combining Simulation and Optimization", Proc. Winter Simulation Conference, pp. 144-152	12/1996
N.	Hill et al., "Intelligent Drilling System for Geological Sensing", Proc. Of the IEEE/RSJ Int. Conf. On Intelligent Robots and Systems, Vol. 1, pp. 495-501	07/1993
O.	Hancke et al., "A Control System for Optimizing Deep Hole Drilling Conditions", Proc. IECON Inter. Conf. On Industrial Electronics, Control and Instrument", vol. 3, pp. 2279-2284.	11/1991
P.	Murphy, Don; "Selecting the Right Rotary Bit is the Place to Smart Cutting Costs", The Oils & Gas Journal, pp. 88-92.	02/03/69
Q.	Jackson, R.A.; "Cost/Foot: Key to Economic Selection of Rock Bits", World Oil, pp. 83-85.	06/1972
R.	Estes, Jack C.; "Guidelines for Selecting Rotary Insert Rock Bit", Petroleum Engineer, pp. 30-34.	09/1974

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

PTO-1449 Information Disclosure Citation in an Application		Application No.		Applicant(s)	
		10/669,105		William A. Goldman et al.	
		Docket Number		Group Art Unit	Filing Date
		074263.0170		Unassigned	September 23, 2003

U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A.	4096385	06/78	Marett	702	8	--
	B.	4903527	02/90	Herron	702	8	--
	C.	5205164	04/93	Steiger et al.	702	9	--
	D.	5330016	07/94	Paske et al.	-	-	--
	A.	2004/0059554	03/25/04	Goldman et al.	703	7	09/23/03
	B.						

FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	E.						

NON-PATENT DOCUMENTS		
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
F.	Chambers, Robert et al., "Drilling Man's Guide to Better Bit Selection", Petroleum Engineer, pp. 100-108.	06/1982
G.	Novig, T., "Factors Affecting Rock Bit Selection", Oil Gas Magazine	04/1988
H.	Soemodihardjo, W. et al., "Application of an Expert System to Rotary Drilling Bit Selection", 1 st Victorian Dep. Of Manufacturing Ind. Dev., pp. II-17 through II-40.	11/1991
I.	Dfendiyev, G.M. et al., "The Optimum Decision in Cutting-Type Drilling Bits Selection with Regard to their Operating Conditions and the Vagueness of the Task Pose", Energy Sources, Vol, 13, pp. 243-250.	1991
J.	"Advanced Bit Engineering, Selection Lowers Drilling Cost", Petroleum Engineer No. 9, Vol. 65, p. 3.	09/1993
K.	Falcao, J.L. et al., "PDC Bit Selection through Cost Prediction Estimates Using Crossplots and Sonic Log Data", SPE/IADC 25733, pp. 525-535.	1993
L.	Pessier, R.C. et al., "Different Shales Dictate Fundamentally Different Strategies in Hydraulics, Bit Selection, and Operating Practices", SPE 28322, pp. 307-318.	1994
M.	Tewari, Shrikant, "Dull Bit Grading and Rock Strength Analysis Key to Bit Selection", Oil & Gas Journal, pp. 45-51.	12/05/94
	Hameed A. et al., "Deep Wells Bit Optimization", SPE/IADC 39269, pp. 197-203	1997
	Perrin, V.P. et al., "Drilling-Index-A New Approach to Bit Performance Evaluation", SPE/IADC 37595, pp. 199-205.	1997
	De Castro, F.J.N. et al., Evaluation of Drill Bit Performance Taking into Account the in Situ State of Stress", SPE International, pp. 1-8.	1997
	Fabian, Robert T., "In Situ Compressive Strength Analysis as an Aid in Fixed Cutter Bit Selection and Performance", ASME International, pp. 86-94.	1997
	Xu, H.. et al., "A Method for Bit Selection y Modeling ROP and Bit-Life", The Petroleum Society, Paper 97-78, p. 1-8.	06/08/97
	Security DBS, "Design at the Customer Interface", brochure	1997

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

PTO-1449 Information Disclosure Citation in an Application		Application No. 10/669,105 Docket Number 074263.0170		Applicant(s) William A. Goldman et al. Group Art Unit Unassigned Filing Date September 23, 2003			
U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A.						
	B.						
	C.						
	D.						
	E.						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	F.						
	G.						
NON-PATENT DOCUMENTS							
		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
	H.	Dekun, Ma et al., "Computer Simulation of the Interaction between Roller Bit and Rock", Proceedings of the International Meeting on Petroleum Engineering, Part 1 of 2; vol. 1, pp. 309-317; XP002266077					1995
	I.	Warren, T.M.; "Factors Affecting Torque for a Roller Cone Bit", JPT J PET Technol., vol. 36, no. 10, pp. 1500-1508; XP002266079					06/1989
	J.	Sheppard, M.C et al., "Forces at the Teeth of a Drilling Rollercone Bit: Theory and Experiment", Proceedings: 1988 SPE Annual Tehnical Conference and Exhibition; vol. Delta, pp. 253-260, XP002266080					10/02/1988
	K.	Steklyanov, A.V. et al., "Improving the Effectiveness of Drilling Tools", KhM-3 Oil Industry Machine Building, Moscow, pp. 1-35.					1991
	L.						
	M.						
	N.						
	O.						
	P.						
LITIGATION DOCUMENTS							
	Q.	Memorandum Opinion of Judge Davis, signed February 13, 2004, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 37 pages (including fax coversheet)					02/19/2004
	R.						
	S.						
	T.						
EXAMINER					DATE CONSIDERED		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							